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THE SCOPE AND CONTENT OF THE DISTRICT HIGH SCHOOL.

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The Scope and Content of the District High School.

Viewed in perspective the high schools of the United States present a decidedly mosaic appearance. That uniformity which still prevails in the elementary graded schools is no longer found in the secondary schools. Fifteen years ago this diversity was not so marked. When the high school stood as a mere extension of the grade schools and was known as the ninth, tenth, eleventh and twelfth grades, into which was introduced Mathematics, Foreign Language and Text-book Science, the same uniformity that now prevails in the first eight grades was observable in the last four. Indeed this uniformity still exists in a majority of the schools of the country, but in the large cities there is a breaking away from this conventional type and as new schools are built some departure is observable. Some of the newer schools contain a little Manual Training for first and second year pupils; others have added the working students' laboratory for Physics and Chemistry; others have gone further and have glass cases for fossils and specimens to show to the pupils studying Botany and Geology from text-books; others have added biological laboratories in which the students study nature at first hand; others have a telescope mounted in an observatory in a tower of the building for the study of Astronomy; others of still more recent types have the beginnings of work specialized in various directions and are called by such names as "Polytechnic High Schools", "Manual Training High Schools", "Polytechnic Institutes", "English High and Manual Training Schools", "Commercial High Schools", "Industrial High Schools", "Latin High Schools", "Mechanic Arts High Schools", "Classical High Schools", "Literary High Schools", "Scientific High Schools", "Girls' High Schools", "Boys' High Schools" and "English High Schools". Still others of more recent construction have complete laboratories for theoretical and practical work in Science, modern shops and laboratories for complete four year courses in the Mechanic and Domestic Arts, counting and stenographic rooms

for complete courses in Commercial branches, elaborate art rooms for work in the Fine and Industrial Arts, art craft shops for the application of the Industrial Arts, moulding shops for the casting of patterns, and mechanical drawing rooms, to all of which is added the complete academic curriculum for the study of the literary and mathematical branches; thus, in fine, embracing all the essentials contained in those previously enumerated.

With this heterogeneous array of types, all bearing the generic title of "High School", it is little wonder that school boards about to erect a new school building view the problem with doubt and perplexity—little wonder that many who are unfamiliar with the educational development of this country should denounce all these departures as fads and proceed to build according to the most conventional type. Still less is it occasion for wonder that men locally influential in social and political circles but ignorant of the laws underlying great social movements should promulgate short sighted and ill digested ideas of their own and by the power of wealth, force of character or social influence carry their fancies into execution. Nor is it to be wondered at that hosts of our school men, teachers, principals and superintendents educated solely to tread the hard beaten paths of tradition should seize the opportunity offered by this apparently sporadic growth to defend their cherished idols against what seems to them a dangerous encroachment upon the "fundamental verities".

Now, important questions arise here. Are these types accidental, sporadic, merely fortuitous sports, springing up by chance, mere transient manifestations of a pathological character without logical sequence or endurance? Are they the work of strong men working out in different localities this or that pet idea, misguided zealots creating wants by propaganda and then supplying them by personal magnetism, tact or shrewdness? Are these new schools, differing so much in character, the results of industrial, commercial or social differences of locality? Or rather, are they manifestations of the national laws of social progress seeking imperfectly to answer the fundamental needs of man,—readjustments of the educational machinery in conformity to changing conditions?

Reflection, observation and experience in almost every type of school above enumerated have led me to this latter position, and it is from this point of view that I shall attempt to survey the situation.

In speaking of the manifestations of natural laws underlying social and educational movements I must first dwell briefly on the limitation of our knowledge of those laws, and make frank confession at the outset that these laws are but imperfectly understood, that all our knowledge is of a secondary character and that nothing can be known in the absolute. Taking an illustration from physical nature, we see everywhere that bodies have a tendency to approach one another and will come together if they are not restrained; but even when so restrained the tendency still remains ready to pass into action when the opposition retires. The ultimate laws underlying this tendency—gravitation, we call it—is and probably always will be unknown. Theories regarding its cause are useful only as giving exercise for the mental powers and as furnishing tentative hypotheses necessary in making new discoveries. But while none may know the law of universal attraction all may observe the tendency. And, indeed, all of us do observe the tendency and base our plans and our actions in conformity to it.

In the vegetable world we see a seed when placed under the combined influences of moisture, earth, and sunlight grow into a tree. We see another under, so far as we can see, exactly similar conditions grow into a cabbage. We have not discovered the law, but we have observed the tendency. In the biological world we see the horse eating grass and grain develop powerful muscles capable of great speed and endurance. We also see the dog eating flesh also develop strong muscles capable of equal speed and endurance. We know the horse would die if fed on meat, and we know the dog would not live if fed on hay, but we can not explain why this is so. In our ignorance of the law and our recognition of the fact we get hay for our horses and meat for our dogs. We have acquired the habit of acting on the manifest tendency, and in our leisure moments we talk learnedly about the law. So it is in our educational and social affairs. We observe tendencies and sooner or later act on them, but we do not

know the laws. We only talk learnedly about them. This talk, and these experiments, have their uses, for the sum total of their effects constitute a factor in the *tendencies*, or world movements.

In pedagogical literature and in educational circles we find volumes of statement given out with the presumption of law, which after all is only opinion and often very poorly digested opinion at that. Take for example commonly expressed beliefs like the following: "The study of a foreign language contributes to facility and strength of expression in the mother tongue." "Manual Training makes boys more moral and more systematic in their work." "The study of science gives a reverence for the laws of nature". "The study of the humanities gives a purer culture than the study of the practical branches". "The study of mathematics strengthens the reasoning powers more than does the study of other things". These are only a few of the stock sayings heard almost daily and accepted by many as truisms, and yet there is not a particle of trustworthy proof to support the truth of any of them. We have but to subject them to the processes of rigorous proof to show that they are only mere opinions. Take for example the first quoted: that "the study of a foreign language contributes to facility and strength of expression in the mother tongue". To prove this we should have to find a large number of individuals exactly alike who had always been under the same environment and experienced exactly the same influences,—individuals with exactly the same powers of future development. One-half of these individuals would then have to be subjected to a training in foreign language added to their course of study, and the other half be subjected to a training with these languages left out. During the process of this training all the individuals of one group would have to be in exactly the same environment as the other group. They would need to have the same hopes, the same fears, the same ambitions, the same recreations, the same number of hours of work and play, the same kind of food and the same number of hours for sleep. At the completion of their course they would have to be tested by competent examiners in all the forms of written and oral expression, in all subjects on which they possessed any knowledge, the judges making the examination not possessing any

knowledge concerning the classes to which the individuals belonged. If it were then found that all the members of the group studying foreign language stood decidedly higher than all those studying their own language, then the contention that these studies do give this ability would be proved.

Now it is of course laughably manifest that nearly all the conditions in this supposed test are impossible and absurd. Then why is the contention any less so? The claim then, that the time given to the study of language gives greater facility in the use of the mother tongue than the same amount of time put in on the mother tongue and other studies can not be accepted as a law of the learning process, and therefore, can be received only as an opinion. Furthermore, this opinion would be valuable only to the extent that it was held chiefly by those who were in no way interested in it financially or professionally—held only by intelligent students and observers of affairs to whom in the outcome there was no personal gain or loss.

I must guard here against a possible misunderstanding. Of course I am not giving this as an argument against the study of foreign language in the high schools. It is only given as a caution against fallacious reasoning and groundless claims. Any of the other statements quoted from other departments of learning would have served for the illustration just as well. Every one of them is almost as often disputed by authority equally competent. We can, therefore, receive them only as opinions.

In face of a multitude of conflicting opinions and practices in our schools, and confessing our inability to find ultimate causes and laws what are we to do when the problem of building a school presents itself? The answer to this question seems to be that we have only to get into the trend of the evolution of events, of national and world movements, and so far as we can after adding our own contribution, our own opinion, conform to them and proceed in full recognition of that selective process which our race like the rest of the biological chain employs for the purpose of attaining in the fullest measure the things which contribute to life and happiness. No longer governed by dogma and opinion we must try to think historically.

It is a universal tendency to choose and adopt the useful, and

to discard the useless. This tendency is often thwarted for long periods of time by an opposite tendency to follow a practice that has crystallized into habit and ceased to be useful. In the long run it is the practice that offers the best service that will prevail. This is of course but the expression of an optimism that the world is improving,—that the race with a sufficient time allotted selects wisely.

Turning now to the question of what a district high school should contain, we have to ask what are the national tendencies? What have been our recent efforts in conforming to them? And how can we improve upon these efforts and make them more effective, more in line with world tendencies? The elements which immediately concern us in this discussion are the same elements which have resulted in the differentiation in high school functions, elements some of which have found their places in separate schools. These elements stated interrogatively are as follows:

1. Should boys and girls be taught together in the high school or should they receive instruction in separate schools? Should Manual Training be taught in the high school, and if so, should it be placed in a special school with a modified course of study, or should it be placed in a few manual training schools only? Or, should it be placed in all schools for the first year or two to be finished later in the special manual schools? Or, rather, should it be placed in full four year courses in the district high school?
3. Should commercial branches be taught? If so, should separate schools be built, or should they, like Manual Training, take their full place in the district high school?
4. Should the public schools foster class distinction or should these lines by all possible means be erased? The answer to the last question will furnish the background for the answer to the preceding ones.

Consistent with the opening paragraphs of this paper, I shall not here attempt to offer arguments for or against any of these questions. I shall simply point out tendencies which seem to be conforming to, or conflicting with the general onward movement. We will now consider these questions in the order named.

1. Should boys and girls be taught in separate schools? Co-education in the high schools is the prevailing system in the

United States and the growth and tendency in this direction is so evident that were it not interesting to glance at the history of this movement nothing further would need to be said. Owing to the inferior place which woman has occupied in the past, she has been, as additional advantages have from time to time been provided, the last to receive the benefits of them; but the attitude toward the education of girls has been becoming more liberal year by year. The early separation of girls and boys in a few large cities in the Eastern States was due partly to a conservatism inherited from Europe; and here it may be said that this conservatism, this adherence to English precedents was one of the two opposing influences that were active during the Colonial period. This spirit of imitation had its opposite in a spirit of protest which many of the colonists brought with them,—a spirit still active and probably responsible for most of the changes which have been taking place since the problems of higher education first confronted the pilgrim fathers.

This separation was perhaps partly due to traditional, academic reasons which have always possessed the minds of many teachers and parents against co-education. Much of this sentiment in favor of girls' schools was borrowed both from women's colleges and from men's colleges in the East, which held strongly to those experiences of college life which only a residence in college halls can give.

Returning to the consideration of that reluctance which has been shown towards extending to girls the advantages which have from time to time been given to boys, it will be interesting to recall that in 1850 no provision whatever in the city of Boston had been made for girls for a high school education, and that the curriculum of a girls' high school finally established was so meager that it was not till 1878 that its graduates could be admitted to college. In 1892, only fifteen years ago, if I am correctly informed, neither Latin, French nor German was taught in the girls' high school of Philadelphia, and until that time no girl in this city could prepare for college in any high school, while for many years previously this preparation had been given to boys. In Baltimore, it is only in the last five years that girls in the high schools could prepare for college.

Twenty years ago when the question of adding Manual Training to the high schools first arose, there came no suggestion that it would be wise or desirable to offer such training to girls. All the arguments were for providing for boys, and all of the first installments of Manual Training were for boys only. Even now in small towns where it is being introduced the girls are left out of the first plans, and are thought of only after the boys have been provided for.

In about 1830 there was a great revival in education, which was spontaneous and extended throughout the entire country. High schools in nearly all towns were established and no distinction was made on account of sex. These schools were open to both sexes, and girls could for the first time enjoy the same advantages as boys. Thus were the girls in the smaller cities and towns, even in Massachusetts and Pennsylvania, permitted to prepare for college for nearly fifty years before the same privilege was enjoyed by the girls of Boston and Philadelphia.

One of the leading causes which led to the admission of girls into the high schools was one of economy. In small towns separate schools could not be afforded even had there been boys and girls enough to fill them. Thus by force of necessity were these schools established in the face of tradition. Once begun there was no tendency to change them. They grew in numbers and improved in quality. Cities in all parts of the country increased in population, became rich, and outgrew the necessity of educating boys and girls together, but no tendency arose to build separate schools and so co-education has become a fact and exhibits itself as a universal tendency.

The social advantages which co-education gives resulting in a truer, saner, knowledge which one sex may gain of the other, and the restraining, balancing influence which one has on the other seems to be everywhere admitted, and will undoubtedly hold the sexes together in the same school for all time to come. The tendency seems to be independent of the age and advancement of the student, for it is extending to the colleges, as a glance at statistics will show.

In 1870, 30 per cent of all the colleges of the United States were co-educational. In 1880, 51 per cent. In 1890, 63 per cent,

and in 1898, 70 per cent. Statistics showing the increase from 1898 to the present time are not at hand, but from the rate shown in the years given, and from our general observation, it can not be less than 85 per cent. And this estimate, let it be remembered, includes all colleges, even those maintained by private endowment. State universities and all schools of lower grade maintained at public expense are, without exception, co-educational. Co-education is admittedly a world tendency.

But while the sending of boys and girls to the same school will probably continue for all time to come the belief that they should be taught together in the same classes is not so universal, and limited segregation is in many co-educational schools being made a subject of experiment. This need not be discussed here. If with a fuller knowledge of the intellectual needs of boys and girls it can be shown that they should be taught separately in a part or all in their studies and exercises, the question will not be one of building separate schools; it will be simply a question of internal classification.

2. Should Manual Training be taught in the high schools? On Manual Training as a world movement, I quote from my monograph in the Fourth Year Book of the National Society for the Scientific Study of Education:

"One of the most obvious and impressive facts bearing on the whole matter of Manual Training in the schools was set forth and revealed to the world at the Louisiana Purchase Exposition at St. Louis in 1904. The fact is plain and will be admitted by all without argument. It is this: Manual Training in the schools of all the countries in the world has become universal. No town in any country represented in that vast array of the world's best work undertook to make an exhibit without a display of handicraft of some sort. This does not mean that every school in the world has Manual Training, for there are many still without it, but it does mean that every town and city taken as a unit has accepted it.

Universal expositions reveal world tendencies, and this is strikingly exhibited in the case of Manual Training. The International Exposition of 1851 at the Crystal Palace marked the beginning of a movement in industrial education—education

through the executive functions—that has culminated in a world movement exhibited at the Louisiana Purchase Exposition in 1904 at St. Louis. France had taken first place in the markets of the world for the beauty and finish of her manufactured articles. At the exposition of 1851 the cause of this excellence was revealed. An exhibition of the work of her schools showing great accomplishments in the line of industrial education set other countries to thinking. All the leading countries of Europe immediately took the cue and proceeded to make technical education a feature in their schools. This was done not as a matter of theory or sentiment, but as a necessity. Each country recognized that in order to hold its place in the markets of the world it must look after the education in skill, and the executive functions of its youth.

Germany began early, perhaps in a small way even before France, but it was not till the Paris Exposition of 1867 that Germany began to show to the world her rapid progress; and at the Vienna exposition of 1873 her exhibit, according to the best information I can obtain, excelled all others.

An exposition at St. Petersburg marks Russia as occupying an important place in this movement. It was here that Victor Della Vos first exhibited the system of tool practice that has formed the groundwork of Manual Training schools since that time. This system, usually known as the Russian system, was first exhibited in this country at the Centennial Exposition at Philadelphia in 1876. It was the first attempt at giving instruction and practice in the principles underlying the various mechanical trades without teaching trades as such. Four years later the St. Louis Manual Training School was opened for boys. This famous school in connection with Washington University, and organized under the direction of Prof. C. M. Woodward, is still in a flourishing condition.

The growth of Manual Training since that time is a matter of common knowledge. It has been a period of advocacy, of strenuous controversy of school house building and of the gradual expansion of the Manual Training idea until there is at the present time none to oppose it. It is admittedly a world movement and as such should have a place in every scheme of second-

ary education. This will probably be generally admitted but there is not the same unanimity as to the relation it should bear to other studies and to the other departments of the schools. It is still an unsettled question, and is at present the most critical problem in high school building. The question may be put in the following form: Shall Literary, Classical, Commercial and Manual Training High Schools be built separately, dividing the pupils into more or less distinct classes at the entrance of their high school course, or shall they all start together in the district high school and be allowed to differentiate at the end of the first or second year into the special schools? Or, should all of the district schools be built after one normal type, each complete in itself, and containing shops, laboratories, counting rooms, art and mechanical drawing rooms, lecture rooms and class rooms complete for carrying on all of those studies and exercises which public demand and experiment have proved to be essential in modern secondary education?

In treating this subject, and in answering these questions I have undertaken to point out universal tendencies. I am in other words trying to get into step with general progress. But if I were to lead up to the answer of these latter questions in logical order I feel I would be in danger of obscuring the main tendency. I shall, therefore, in order to hold your attention, give the conclusion first and then carefully trace the steps by which it has been reached. The conclusion is this: *The district high school should be complete in itself and should contain all the units of secondary education for the entire course.* The number of the more specialized schools which have within the past fifteen years been built in various parts of the country would seem to negative this conclusion. This is why I am safe-guarding it by a careful approach, and by putting you on guard against receiving this fact as one showing the most general tendency. The placing of these later branches in separate schools under another principal was a necessity, but this necessity was temporary, and will disappear, if it has not disappeared already. These branches were placed in separate schools because their educational and practical values could be demonstrated in no other way. The conservatism which always stands on guard against all innovations made

it impossible fifteen years ago successfully to install Manual Training, or a practical Commercial course in the old high schools. It failed wherever it was tried. Like all new organisms these new branches needed a sheltered environment. They needed a school with a principal in full sympathy with them—a principal possessing the requisite knowledge and ability to plan the course, and given the freedom to carry it forward.

A curious and interesting fact in the growth of school systems may be noted here. It is that tendency to set the newly acquired studies off by themselves. The first illustration of this may be remembered by a visit to the old Latin and English high school of Boston. This building was planned by Mr. John D. Philbrick and marked an important step toward the introduction of science into the high schools. This transition left its mark on the building. The two assembly rooms on the third floor each capable of seating 800 persons would of course serve the purpose of a modern high school by uniting them into a single room capable of seating the whole school, but it was necessary at the time of erecting this building in 1877 to provide separate rooms for the classical and mathematical students, and those taking the English and science branches. These two classes of students were not allowed to assemble together! The relation which in some localities still lingers between Manual Training and Commercial branches and the rest of the school existed between the Classical and Science branches thirty years ago!

Manual Training High Schools and Commercial High Schools were built in various cities, containing in their curricula varying amounts of academic work. They have all succeeded and have drawn students in great numbers, but the tendency of these schools has been to add more and more of academic work to their courses till some of them already have the full high school course of study contained in other schools preparing their pupils for all courses in college. Some, like those of Denver, Kansas City, Indianapolis and St. Louis were made complete at the start and they all became immediately popular.

As an illustration of the nature of the demand for this type of school, I may refer to an occurrence which happened in 1901 in Kansas City and Denver simultaneously. The rapid growth

of these schools at both these places was so great and so much in advance of that of the older high schools that an organized attempt was made to remove the foreign languages from the course of study, and notwithstanding that the attempt was led by many of the leading school men of both cities it was overwhelmingly defeated. Not only were these languages retained but still other additions were made to the curriculum. At mass meetings called to oppose this change, the citizens gave as reasons why the course should remain complete: That they wanted Manual Training, but that they wanted their children to have a liberal education; that they wanted their children to prepare for college and to share the highway to knowledge equally with children of the other high schools; that they did not want to be ostracized from the time honored channels of study as a price for Manual Training; that they wanted no class distinction shown to those who did not want Manual Training.

And right here we find the keynote of this whole question and here we shall find a world movement away from caste and class distinction, and toward democracy in all social and educational affairs that will justify the cosmopolitan character of the district high schools. At this point I shall ask pardon for a digression of some little length to show that, thinking historically, we can not escape the conclusion that any permanent reversion toward class distinction—any separation of boys and girls entering high school, which removes them from the general highway to knowledge on the one hand and from the influence of practical and useful things on the other will be resisted by the American people.

In this digression we need but to glance into the history of nations as revealing this tendency toward greater social unity. Popular education has always been gaining ground and is now receiving more attention than at any other period in the past.

The French Revolution was a movement toward popular education and popular intelligence, which is now everywhere counted as an element of national wealth and power, and no nation fails to make provision for the free and equal education of its people.

Germany through the illuminating influence of Pestalozzi and from its humiliation resulting from the wars of Napoleon has made ample provision for bringing education to all of its people.

Secondary education there for a long time was limited to the gymnasia where the sons of the ruling classes were educated for the learned professions. But the establishment of the Real-Schools brought a high school education to the level of the common people and was a long step in the direction of caste elimination. True, the humanistic character of the gymnasium on the one hand and the practical character of the real schools on the other have been the occasion of a sharp conflict between the respective advocates of the two forms of education, but the general result has been a tendency towards a greater toleration toward the lower classes and a better mutual understanding between opposing factions. Both of these types of schools have courses of nine years each and there is really little difference between them. There is a growing belief that a little less Latin and the substitution of Chemistry for Greek, which is about all the difference between them, does not justify a claim for superior culture for the gymnasia, and there seems to be no reason except class prejudice, which is fast disappearing, why these two courses should not be pursued together in the same building by the different students choosing them. The differences between these different types of schools in Germany have been gradually disappearing. They now have the "Gymnasium", the "Realgymnasium" and the "Oberrealschule", and these schools have within the last six years been declared by royal decree "to be considered equal in value from the point of view of general culture". This principle once recognized, the economy of placing all the students in the same locality together in the same school where the selective process can take place naturally becomes manifest. The social relations which the students following different courses create in school will be carried out in their lives after they leave it.

In France the spirit of the revolution of 1789 was democratic and was a movement toward popular intelligence, and the Convention of 1793 not only established schools for the masses but made attendance in them compulsory, and while foreign discord prevented the execution of this law, its passage revealed a tendency. The world mission of Napoleon against the crowned heads of Europe was to break down caste and class distinctions and the system of education which he established in 1806 has

resulted through many changes between successive backsets and victories in a system which has placed France in the foreground among the nations of the earth.

Secondary instruction in France was provided by the lycéums which correspond to the German gymnasia. At first like the gymnasia they were exclusively literary, Latin and Greek being the leading subjects taught, but they have from time to time undergone changes which bring them into close relation with the requirements of the present age. The system has been divided into two courses, one giving prominence to the ancient languages, the other to mathematics and the natural sciences, and both courses are pursued in the same school.

A system which combines literary and technical instruction was started in Paris as early as 1872 and has since that time been gradually enlarged, and that class distinction which has separated the children into caste groups is disappearing. While the idea of educating the youth for some definite trade still predominates in France as it does in Germany, and as it probably should, my present purpose in using these facts is to show that beneath it all there is a principle which is making for democracy and is narrowing the gap between the so-called higher and lower classes, and between those pursuing humanistic studies and those choosing branches which lead to economic efficiency.

Even the unprogressive nations of Asia are showing this tendency. Japan has thoroughly modernized its system of education and now has a comprehensive school system for all the people. Greece and Italy now have modern systems, and Belgium, Denmark, Norway, Sweden, Spain and Portugal all have some system of popular education provided by the public tax. Even China has within the past year shaken itself and has emerged with the most radical reforms probably ever made in so short a time by any nation—reforms all in the direction of educating all the people and toward the elimination of social or academic class distinction.

It will of course be understood that I am not claiming that class cult, flunkeyism and caste is not still prominent in these countries when viewed from an American standpoint. I am only pointing out that it is gradually becoming less, and that the gen-

eral trend is toward democracy and away from class distinctions.

England was the last country to fall into step in this universal progress. The organized aristocracy of that country held it in bondage for centuries and it has only in the past few years recognized the rights of the masses in educational matters. The sledge hammer blows of Dickens, the rival denominational factions aroused by the school work of Bell and Lancaster, and the influence of other countries have at last weakened the grip of the aristocracy, and the struggles of the past few years puts England on the map of universal progress. Even the aristocratic schools of Eton, Winchester, Harrow and Rugby are said to have made some improvement, but on good authority they still possess some of the Archaic characteristics of the famous school of Dr. Blimber, one of the best of all the caricatures of Dickens. I have referred to this *sui generis* position of England and the medieval character of these schools for the purpose of reminding you of some of the things which we Americans inherited, and also that the universal tendency is toward a more perfect unity in the schools.

During the colonial period this inheritance was revealed in the character of the old grammar schools whose main purpose was to fit the student to pass a college examination, and these examinations were chiefly in Latin and Greek. The following were the requirements as stated in the seventeenth century: "When scholars had so far profited at the grammar schools that they could read any classical author into English and readily make and speak true Latin, and write in verse as well as prose; and perfectly decline the paradigms of nouns and verbs in the Greek tongue they were judged capable of admission in Harvard College". The name "grammar school" was certainly appropriate in those days, but the name still clings to us though "grammar schools" as such have long since passed away. The name has descended to the elementary schools where it would seem there is the least justification for it, and they still carry it along with their other burdens.

In the Colonial schools social distinctions were sharply defined and they were conducted in the interests of the professional classes. There was no provision in higher education for the

middle classes and none whatever for girls. This remarkable condition was our inheritance from England. Since the Colonial period through the academies and public high schools a transformation has been gradually going on and the caste spirit has almost disappeared. But the high school became inadequate to the growing demands of the times and in order to take the forward step which the people demanded it became necessary to revert in some measure to the class division in order to remove the new branches far enough from the obstructions of extreme conservatism to demonstrate their right to a place in the curriculum. This separation of the pupils whose parents from long inheritance and custom would choose for their children the humanities, from the pupils whose parents from lack of education and opportunities would choose the so-called "vocational studies", is a step toward a reversion to the old class idea. But the point I would emphasize here is that this step is only temporary and merely incidental to the transition toward modern requirements which is now in progress and is everywhere manifest. It is, it seems to me, one of the throes of readjustment. The anomaly of separation will cease when the right of the new studies to a place in the curriculum has been demonstrated, and I think we are about ready to agree that the demonstration has already been made. The temporary evil effects of class distinction and separation made necessary by existing conditions can not long obscure the broader principle everywhere manifest—the principle of class elimination. The minds of our educators have within the period of this transition become sufficiently broadened by the new outlook to render the new branches safe in their hands. This is probably enough to prove broadly my conclusion stated in advance, that our children should not be separated at the door of the high school; but a few additional references to our experiences in making this transition will be of interest. I shall take one illustration from the United States, and one from Germany and both will show how liable men are to explain effects by wrong causes, especially when under the bias of a preconceived notion.

The first of these illustrations is furnished by Henry A. Pritchett, ex-President of the Massachusetts Institute of Tech-

nology, in an address at the Boston meeting of the National Teachers' Association. In this address he contended that boys entering his institution from the literary high schools were superior to those coming from the manual training schools; that while the literary high school boy showed at first less aptness and skill in the shops, he showed more intellectual grasp, more real ability and in the long run came out ahead of the manual boy in his studies; and that the manual boy seemed to lack the refinement and culture possessed by the literary boy; Mr. Pritchett seemed inclined to attribute this difference to the superiority of the humanities as training, even for a course in technology. Let us assume for the sake of argument that his statement was true as to facts, and that his data were sufficient to justify his contention. Had he taken a broader view of the contributing elements in fitting a boy for college he would have taken these boys in comparison before they entered the high school. One of them, the literary boy, may have come from a cultured home, descended from a family which had for generations been fortunate and able to receive and assimilate the best in wealth and obtainable education. The other may have come from a home that had not known these things, and had not inherited those powers and graces possessed by the ruling classes. One may have started out with all the capital which an inheritance of continued success had given him. He may have lacked only one thing, experience with practical things and skill in practical knowledge, and he might not have lacked even these had not an arbitrary division denied him the use of the shops and the association with boys of practical experience. Likewise the manners, refinement and bearing which the manual boy lacked might in some degree have been acquired in daily association with the literary boy had he not been separated from him at the door of the high school.

The other illustration showing the danger school men are in when reasoning from cause to effect, I shall take from the report, or memorandum as it was called, which was issued by some German professors in a contention that the *real school* did not turn out so high a class of students as did the gymnasias. This memorandum was issued about twenty-five years ago, shortly after the establishment of the *real schools*. In answer to that

part of the document which claimed that the superiority of the students in the gymnasia was due to the studies in them, I made reply in the October number of the *Educational Advance* in 1882 in the following words: "First, in Germany the University is the only medium of approach to the learned professions of law, medicine, etc. Until quite recently the gymnasium was the only medium of approach to the University. No one will deny that as a rule students in Germany who are preparing for the professions are mentally superior to those preparing for a business life outside the professions—that they at least by virtue of their tastes possess more scholastic ability. The *real schools* were established in answer to the necessity of furnishing in the shortest time a thorough preparation for a non-professional, active life. Consequently these schools, even though the studies in them might possess superior disciplinary value, did not attract those who were seeking the learned professions. The gymnasium was still considered the only medium to professional or scholastic excellence and hence continued to receive those who were seeking the highest excellence—those possessing the highest natural ability. It is a fact of common observation to those who have had any experience in college life that the classical course has ever been held up to students as possessing superior merit and by those who receive their support from the institution in which the study of the classics predominate. Thus the best students have ever been attracted to these studies; and the mental excellence they afterwards evinced might have been due not so much to the studies as to the natural capacity which these selected students brought to them". Now I am not advancing the claim or even admitting that all the ability, culture and refinement are found in the American literary high schools and in the German gymnasia, or that all the mediocrity, crudeness and boorishness are to be found in the manual training schools, and real schools, far from it. It is indeed becoming quite conspicuous that owing to the growing belief in the culture value of a practical education many boys and girls of cultured parents are being sent to the so-called vocational schools, and on the other hand many uncultured parents who would secure for their children a higher social standing than they themselves have enjoyed are sending to the literary schools which

they think will secure for them the social plane they seek. But the examples given in Mr. Pritchett's address and in the German professor's memorandum do serve to show how easy it is to secure examples to prove a pre-assumed theory.

The busy world is fast outgrowing the belief in the peculiar educational advantages of this or that study per se. Even the schools, the last to yield to this world tendency, have been consciously or unconsciously moving in this direction, and even the temporary artificial separation made necessary to demonstrate the right of so-called vocational branches to a place in the courses of study has served its purpose, and in some of the newer schools in our large cities the studies and exercises are taking their true place with the others in a single building.

This tendency toward the elimination of the class feeling which the intermingling of all pupils in subjects which they have in common is accomplishing, is the most important work when broadly considered that the schools are doing today. Boys and girls from all courses, classical, commercial, literary, scientific, and manual training, reciting together in the same classes in English, language, history or mathematics, become known to one another, and this association is breaking down those social barriers and artificial distinctions which have caused so much sorrow and injustice in the world. They are learning that there is just as much honor and true value so far as social standing is concerned in one study as there is in another. The children with aristocratic ideas are learning by contact something of the value of those simple, sturdy and homely virtues possessed by the common people, and the children from the homes of these common people are by imitation and association acquiring something of those manners and graces of which they would otherwise be deprived. This privilege is priceless and has been enjoyed in our public high schools since their establishment. It is really their most valuable characteristic and will certainly be retained in the readjustments to newer conditions which are now being made. The present transition period through which the schools are now passing will close with the district high school par-excellence—a high school normal to the times and comprising all that it is proper and best for any child in the district to receive in a school of secondary grade.

The objection so often and so earnestly urged that this tendency is loading the course with too many studies, that it is dissipating the child's powers with a multiplicity of studies is not valid. There is, I think, general agreement that the number of studies and the variety of work which a child can carry has its limits. But the new school does not increase necessarily the number of studies to be taken; it only increases the number from which to choose.

This brings us to a consideration of the elective system—another tendency which is more and more requiring compactness in method of serving the studies and keeping them close together in order to furnish the various combinations selected by different pupils. The choice of "courses" such as "English", "classical", "scientific", etc., which the high schools have since their first establishment offered to pupils shows that the elective principle has been working from the start. The changing and multiplying of these courses from time to time have suggested inevitably its extension so far that the choice finally comes to be one of subjects instead of prescribed groups or courses. However, the necessity of certain constants in language, mathematics, history and science has with few exceptions been maintained. The Committee of Ten reflected this tendency and within the limitations of these constants recommended the largest possible freedom to the student and his advisors. The opinion is rapidly gaining ground that the schools should adapt themselves to the diverse talents of the pupils and as no students have exactly the same aptitudes, and, stating the resulting inference in an extreme form, every one should pursue a different course from every other one. This view has been reinforced by the action of such universities as Leland Stanford, the state universities of Indiana and others in receiving students on a quantitative instead of on a qualitative basis. The committee of ten expressed itself on this point in the following words: "That the colleges and scientific schools of the country should accept for admission to appropriate courses of their instruction the attainments of any youth who has passed creditably through a good secondary school course, no matter to what group of subjects he may have mainly devoted himself in the secondary school". The committee of

fourteen in the main reflected the same tendency, that with the retention of certain constants or "norms" the principle of election be recognized.

This diversity which results either from free or modified election makes the composite and comprehensive character of each district school inevitable. The tendency of this system expressed in the broadest terms is one of great elective diversity, and at the same time one of great spiritual and social unity. Is this not as it should be? In the world at large there is and always must be great diversity of occupation. And the tendency toward an universal social and spiritual unity will be the crowning achievement in human progress.

In planning a new school the matter of first importance is the building. Courses of study can be changed and improved, but the building stands as a monument of wisdom and foresight, or as a caricature of ignorance and shortsightedness. A building for a modern high school which is to contain all the work indicated in the foregoing must constitute a complicated plant and it should represent the combined knowledge and skill of architect, artist, engineer, superintendent, principal, and teacher specialist for each and every department. Light, heat, ventilation, number and size of rooms, width of corridors, shops, laboratories, art and drawing rooms, gymnasiums and auditoriums, are matters of first importance. In every building which has thus far been erected there is revealed along with an increasing excellence, a tendency to error as well as a tendency to sacrifice utility and fitness to architectural effect, but in our newer buildings there is welcome evidence that the architect is now willing to share the responsibility of this complex task of school house building, with those who know the needs of the various departments.

The new modern district high school contains besides the usual number of class rooms and a large auditorium, art drawing rooms, drafting rooms, five large shops for the mechanic arts, domestic science laboratory, domestic art rooms; rooms for commercial branches—stenography, typewriting, and bookkeeping, with a counting room for office routine; laboratories for studying physics, chemistry, physiography, and biology; a

library; a lunch department including a large dining room, kitchen, check office and refrigerator room; and two gymnasiums, one for boys and one for girls.

On page 26 I have endeavored to show in convenient form a schedule of studies which the building of such a school house contemplates.

It may be noted here that there is an opinion, latent, growing and widespread, that the high school of the future will contain six years instead of four, but as a considerable length of time must probably intervene before it can be fully realized, it is for present purposes probably best to think of our schedule on the conventional basis of four years.

From this schedule it will be seen that four years courses are provided in business or commercial work, mechanical and art drawing, English, history and economics, French, German, Greek, Latin, Spanish, Domestic arts, Domestic science, mechanic arts, mathematics, music, physical culture, natural science, physical science, and technical science. With the exception of Greek all the courses here named are on the increase in schools of this kind. Present tendencies seem to point to the elimination of this language from the secondary schools in the near future.

From this schedule any combination of courses can be devised to suit the various opinions concerning such matters. But it is suggested in view of the growing tendency toward flexibility, that the making up of pupils' courses be entirely individual, each pupil's needs and desires being considered separately and his work made up term by term from a partial cross section through the schedule. This selection for each term is made horizontally from the schedule and the progress from term to term through the course proceeds vertically.

I remember with great distinctness the remark of Supt. Brooks of this city (Philadelphia) when I showed him this plan ten years ago when I was visiting the chief cities of the country preparatory to the building of a school in Kansas City whose Board of Education had commissioned me to study different systems then in vogue. After looking it over carefully, Dr. Brooks said: "It is an ideal plan if you can get it adopted.

MODEL HIGH SCHOOL COURSE

PREPARED BY

GILBERT B. MORRISON.

ST. LOUIS.

CLASS	YEAR	BUSINESS	DRAWING		ENGLISH	HISTORY ECONOMICS	LANGUAGE				MANUAL TRAINING		MATHEMATICS	MUSIC	PHYSICAL CULTURE, BOYS & GIRLS	SCIENCE	
			ART	MECHANICAL			FRENCH	GERMAN	GREEK	LATIN	SPANISH	INDUSTRIAL ARTS				MECHANICAL ARTS	NATURAL
FIRST	FIRST	General Arithmetic, Penmanship, Composition	Modeling, Plaster Composition	Sketching, Composition	American Classics and Composition	American	French, German,			Latin,	Spanish,	Elementary Sewing	Joining, Toising,	Construction at Geometry, Teaching.	Class Drills, Games	Zoology, Physiology, Botany.	
		Penmanship, Business Forms,	Sketching, Color Work	Elementary Technical Drawing	American Classics and Medieval Composition	American	French, German,			Latin,	Spanish,	Machine and Sewing	Joining and Carving.	Algebra and Plane Geometry.	Class Drills, Games.	Zoology, Physiology, Botany.	
SECOND	FIRST	Sketching from Life.	Sketching in Descriptive Geometry	Picture Composition	English Classics and Composition	French, German,	Greek,		Latin,	Spanish,	Drafting and Decorating	Turning.	Algebra and Plane Geometry.	Gymnastics, Games, Composition, Athletics.	Botany, Zoology, Geography.		
		Historic Ornament, Ink Work.	Picture and Ink Work.	Picture and English Prose Verse	English Classics and Composition	French, German,	Greek,		Latin,	Spanish,	Millinery.	Joining, Weaving, Paper Making	Algebra and Plane Geometry	Gymnastics Games, Musical Terms.	Zoology, Geology, Metallurgy.		
THIRD	FIRST	Office Practice Commercial Geography	Machine Drawing	Machine Drawing	Picture and English Prose Verse	American	French, German,	Greek,		Latin,	Spanish,	Leatherwork	Joining	Algebra and Solid Geometry.	Joining, Gymnastics, Athletics.	Physiology, Physics, Chemistry.	
		Geography, Spelling in Comic Book	The Crafts Drawing	Technical Drawing	Picture and English Prose Verse	American	French, German,	Greek,		Latin,	Spanish,	Cooking	Joining, Metal Work, Timbering.	Algebra and Plane Geometry	Joining Gymnastics Athletics	Physics, Chemistry, Biology.	
FOURTH	FIRST	Geography, Spelling and Lettering	The Crafts in Book Design	Machine Drawing	English Picture and Verse	Civil	French, German,	Greek,		Latin,		Cooking	Machine Work Practice.	Descriptive Geometry	Field and Track Work Games.	Chemistry, Physics, Biology.	
		Geography Spelling and Lettering	The Crafts in Book Design	Machine Drawing	English Picture and Verse	Civil	French, German,	Greek,		Latin,		Cooking	Machine Work Practice.	Descriptive Geometry	Field and Track Work Games.	Chemistry, Physics, Biology.	

NOTE:—This schedule of studies provides for the work which should be furnished by a large high school. From this schedule any combination of courses can be devised to suit the various opinions concerning such matters. But it is suggested in view of the growing tendency toward flexibility that the making up of pupils' courses be entirely individual, each pupil's needs and desires being considered separately and his work made up term by term from a partial cross section through the schedule horizontally.

You may be able to do it in Kansas City where on account of its youth there is still flexibility, but it would be impossible at the present to accomplish it in one of the older cities, especially the great cities in the East where things get pretty deep in a rut". These were his words as near as I can remember them. But great things have been accomplished in these cities in these last ten years. While it is quite true that our great cities are conservative and slow to move out of long established custom, sometimes waiting many years before adopting new lines of policy, it is also true that when they are finally moved to take a step it is usually a very long one which often carries them far beyond those localities which took the initiative. This is possible because of the greater wealth of the large cities and the greater power of collective intelligence when it is once aroused. The small towns often pave the way and demonstrate the new departure. The large cities then come forward and do the thing in a better way. The plan just referred to was adopted in Kansas City substantially as you see it here and a building erected to carry it out. The constants finally adopted by the Board were English, four years; mathematics, three years; science, two years; and manual training, two years. All other studies were elective. On entering the school the pupils were given a schedule of the leading colleges of the country showing their requirements for admission. This enabled them to choose their course intelligently. During the seven years of my connection with the school an average of eighteen per cent of the graduates entered college, and the great range and flexibility of the studies attracted hundreds for a longer or a shorter time, who would otherwise never have attended high school at all. The school attracted all classes, rich and poor alike. It became very popular and in six years reached an enrollment of eighteen hundred pupils, and I am informed that it still maintains its former characteristics, and continues to hold its place in public esteem. To those pupils who expect to go higher this school prepares for any university, and for all others it is truly the people's college.

This, in brief, is the history, not only of the Kansas City school, but also of those of a similar character in a few other cities.

Within this ten years one of our older and more conservative cities has accomplished substantially the same thing in a better way and in a much finer building. St. Louis has within the past four years built the McKinley School. It is a district high school and is equipped for carrying the work shown in this schedule. With the exception of the course in technical science and the one in music the studies and exercises are the same. The pupils select their studies by groups called courses, there being nine of these, each one containing besides the usual constants a line of special work pursued as a major.

It may be said of the two plans, the election by studies and the election by groups, that each has its own advantages and disadvantages, and a decision in favor of either at the present time would be a matter of opinion. But a long historical look at the question seems to point toward the plan of ultimate individual selection.

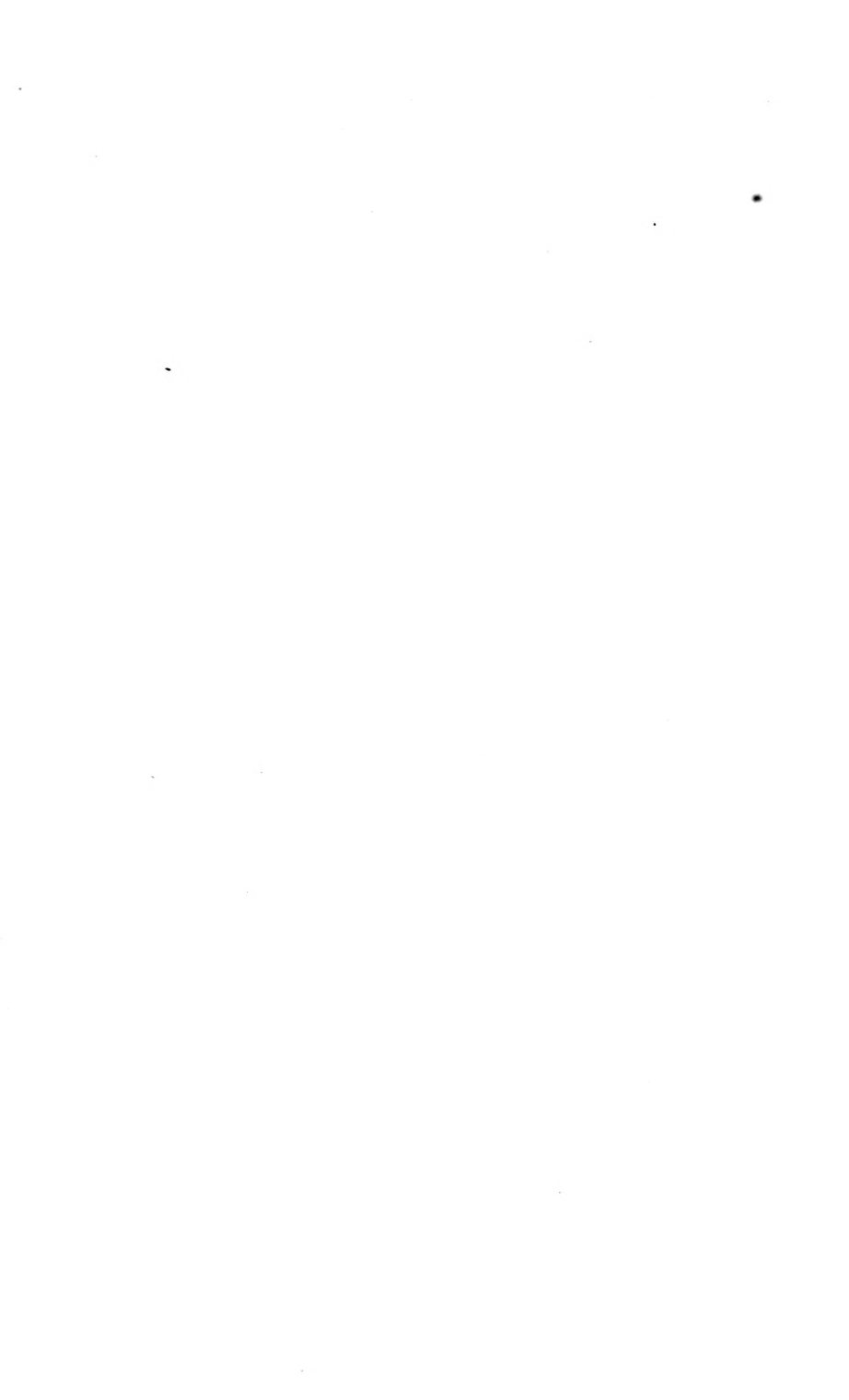
This St. Louis school was the happy result of a non-partisan school board with Dr. C. M. Woodward as one of its members, and a wisely constructed departmental system with Supt. F. Louis Soldan at its head. It was my good fortune after the school had been planned and the building well under way to be called to the principalship. The school has enrolled at the close of its third year fifteen hundred pupils, which is the limit of its capacity.

The Yeatman High School has since been built for another district, and with the exception of thirteen additional class rooms which have been added to the McKinley, the Yeatman is an exact counterpart of it. A lot for another high school has been purchased in still another district and it is the intention of the Board to build the new school on the same comprehensive plan, with the improvements suggested by time and experience. This, I believe, will be the type of high school which will be recognized generally as normal to our present stage of educational progress.

The problem of school house building can never be completely solved without considering the cost. These comprehensive buildings with their extensive equipment are expensive. This will, of course, have to be recognized and frankly admitted.

The question then follows: Should this equipment be placed in every district? or installed only in certain centres farther apart? The question is easy to answer. If the shops, laboratories, drawing rooms, counting rooms, etc., when placed in the district high school were to remain for any considerable portion of the day unoccupied and unused, then this equipment would be extravagant and the money expended on them could be put to better use. If, on the contrary, this special equipment is in use during the full school day; if the limit of its capacity is reached by the number of the students electing the work, then it would be as economical as it could possibly be; provided of course that we assume the right of election either by courses or by subjects. The final answer to this question can not be made till these schools have been sufficiently multiplied to furnish the necessary data. At present we have to divine the tendency by observing the facts in the few cases we already have. So far as I know the equipment is employed to the limit of its capacity in existing schools old enough to have all classes fairly representative. The McKinley High School has just finished the third year of its existence and every department is already crowded to overflowing. The shops, drawing rooms and commercial rooms are insufficient to accommodate our present enrollment of fifteen hundred pupils, about forty per cent of whom have to the present time elected these subjects. We may assume this to be a somewhat exceptional case and still have room for the inference that these installations will never stand idle wherever they shall have been put to a fair test. This then seems to answer the question of economy.

In conclusion I venture the suggestion that the broad principles of differentiation and election outlined in the foregoing, places our secondary schools in a position for a still further differentiation that will enable them to expand and to meet the growing demand for "industrial" education now making its appearance on our educational horizon. A system inherently elastic and democratic will respond to growing tendencies and demands without a revolution, or a reversion to caste types.



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